REMARKS

This amendment is being filed in response to the Office Action having a mailing date of May 16, 2005. Claims 1-13 and 15-20 were pending before the submission of this amendment. Claims 1, 2 and 9-12 are rejected. Claims 3-8 and 13-19 are objected to. Claims 1 and 10 are amended to further clarify the inventive subject matter recited therein. Claims 15-20 have been renumbered as Claims 14-19 since Claim 14 was missing. Claims 20-28 are added. No new matter has been added. Claims 1-28 are now currently pending. All of the claims remaining in the application are now believed allowable for the reasons stated bellow.

Objected Claims

Claims 3-8 and 13-19 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicants thank the Examiner for indicating the allowability of claims 3-8 and 13-19.

New independent Claim 23 incorporates dependent Claim 3 with original Claim 1. New Claim 23 is therefore believed to be allowable.

New Claims 24-28 depend from allowable Claim 23. New Claims 24-28 are therefore allowable for at least the same reasons as that of new Claim 23 as well as any further limitations they recite.

Claims 13-19 are not being placed in independent form because claim 11, from which claims 13-19 depend, is believed to be in condition for allowance as explained below.

Rejections under 35 U.S.C. § 102(e)

Claims 1, 2 and 9-12 are rejected under 35 U.S.C. § 102(e) as being unpatentable over Magazzu' et. al., U.S. Pat. No. 6,593,817 (hereinafter Magazzu'). Claims 1 and 10 have been amended. Claims 2 and 9 depend from amended Claim 1.

Claim 1 as amended recites "means for selectively applying the control signal and the conditioning signal to the energy accumulation means." Support for this amendment can be found, for instance, on pages 9-10 of the present application. In contrast, Magazzu' teaches

always applying a control signal to the capacitor 14. For example, as can be seen in Figure 11 of Magazzu', the storage capacitor 14 is connected directly to the charge pump 9, with no intermediate switch. With no intermediate switch, the circuit of Magazzu' is not capable of selectively applying a control signal or a conditioning signal as is described in amended Claim 1. As such, none of the cited references, singly or in combination, disclose, teach or suggest all of the limitations of amended Claim 1. Therefore, amended Claim 1 is believed to be allowable and notice to that affect is respectfully requested.

Claims 2 and 9 depend from and further limit amended Claim 1. Claims 2 and 9 are therefore allowable for at least the same reasons as that of Claim 1 as well as any additional limitations they recite.

Magazzu' does not disclose the invention recited in Claim 10, as amended. Claim 10 as amended recites "accumulating energy provided by the control signal and the conditioning signal responsive to a first phase of the reference signal, and transferring the accumulated energy for controlling the frequency of the output signal responsive to a second phase of the reference signal." Magazzu' does not disclose accumulating energy responsive to a first phase of a reference signal. Instead, as is explained above with respect to claim 1, Magazzu' directly connects the charge pump 9 to the capacitor 14 and thus teaches to always apply a control signal to the capacitor 14 rather than as described in amended Claim 10.

In addition, Magazzu' does not disclose transferring the accumulated energy for controlling the frequency of the output signal responsive to a second phase of the reference signal. Instead, Magazzu' teaches transferring accumulated energy from the capacitor 14 to a filter 10 responsive to a signal indicative of the turning-off of the charge pump or a signal indicative of a frequency lock (see, e.g., Magazzu' at Figure 8). For example, as can be seen in Figure 8 of Magazzu', the storage capacitor is connected to the filter 10 through a switch 15. "The switch 15 comprises first SW1 and second SW2 elementary switches connected in parallel with each other between the charge pump generator 9 and the filter 10 and respectively controlled by a signal LOCK from the phase detector 8 and a signal Cpoff from the charge pump generator 9" (see, e.g., Magazzu' at col. 5 lines 57-62). Neither the signal LOCK nor the signal Cpoff have a first and second phase that corresponds to the first or second phases of the

reference signal. For example, the phases of the signal LOCK correspond to a relative difference of the reference signal and a feedback signal, rather than the phase of the reference signal itself (see, e.g., Magazzu' at col. 5, lines 63-67). Similarly, the signal Cpoff corresponds to when the charge pump generator is of, rather than the phase of the reference signal itself (see, e.g., Magazzu' at col. 6, lines 1-3). Thus, Magazzu' does not teach or suggest transferring the accumulated energy for controlling the frequency of the output signal responsive to a second phase of the reference signal as is recited in amended Claim 10.

For the foregoing reasons, amended Claim 10 is not anticipated by the cited prior art.

Magazzu' also does not disclose the invention recited in Claim 11. Claim 11 recites "a plurality of energy storage legs connected to the intermediate node and controlled by respective bits of a digital compensation signal." An example of such an arrangement is shown in Figure 3a of the present application, where plural capacitors 320 are arranged in plural energy storage legs. In contrast, Magazzu' teaches using only a single capacitor 14 (see, e.g., Magazzu' at Figure 8). A single capacitor is not a plurality of energy storage legs as is recited in Claim 11. As such, Claim 11 is not anticipated by Magazzu'.

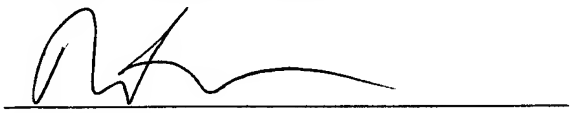
Claim 12 depends from and further limits amended Claim 11. Claim 12 is therefore allowable for at least the same reasons as that of Claim 11. In addition, claim 12 further recites a capacitor connected between the energy storage legs and the intermediate node. An example of such a capacitor is the capacitor 340 shown in Figure 3a of the present application. Again, Magazzu shows only a single capacitor 14 connected to an intermediate node between the charge pump 9 and the filter 10. Such a single capacitor 14 cannot be the capacitor of claim 12 and the plural energy storage legs of claim 11. Accordingly, claim 12 is not anticipated by Magazzu'.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

SEED Intellectual Property Law Group PLLC



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